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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/758,100	01/16/2004	Masaaki Yokoyama	2004_0078	4979
513	7590	09/27/2005	EXAMINER	
WENDEROTH, LIND & PONACK, L.L.P.			KUHN, ALLAN R	
2033 K STREET N. W.			ART UNIT	
SUITE 800			PAPER NUMBER	
WASHINGTON, DC 20006-1021			1732	

DATE MAILED: 09/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/758,100

Applicant(s)

YOKOYAMA ET AL.

Examiner

Allan Kuhns

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 5-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 5-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☒ Certified copies of the priority documents have been received in Application No. 09/870,152.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 030904.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_.

1. Claims 7 and 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. These claims appear not to further limit claims 5 or 6 because the two independent claims require a specific melting point range for the polyethylene coating material, but claims 7 and 8 state that there is substantially no melting point exhibited. In addition, it is unclear as to how polyethylene would not have a melting point. Clarification is required.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 5, 9, 11, 13, 15, 17 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shioya et al. (5,928,776) in view of Japanese reference (10-077359). Shioya et al. disclose or suggest the basic claimed method for producing a polypropylene resin molding composite for an automobile including (1) providing a surface layer of polypropylene resin and a laminate of cushioning material which is a polypropylene resin expanded sheet having a melting point greater than 130 degrees C. (column 4, line 50) (it is submitted that the sheet inherently has a hardness within the claimed range), (2) providing thermoplastic resin expanded particles comprising polypropylene resin and being in an expanded state, (3) placing the surface layer in a mold, (4) filling the thermoplastic resin particles on the cushioning material, (5) heating

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the thermoplastic resin expanded particles, and (6) obtaining the polypropylene resin composite. Shioya et al. do not teach the aspect of providing the expanded particles with a coating of a poly ethylene resin melting at less than 125 degrees C. and heating the particles such that the polypropylene does not melt but at a higher temperature than the polyethylene such that the layer of expanded particles is fusion bonded, but such is taught by the Japanese reference. It would have been obvious to one of ordinary skill in the art to incorporate this teaching of the Japanese reference into the method of Shioya et al. in order to enhance the fusion bond between the expanded particles and permit lower molding temperatures to be used. It is submitted that coating of the polyethylene on the polypropylene particles would inherently tend to bond the foam layer to the cushioning layer of Shioya et al. The examiner takes Official Notice that it is known to provide plastic surface layers of composites for automobiles (particularly automobile interiors) with a grain pattern.

Shioya et al. teach heating with steam, as in claim 11, at column 2, line 3, a sheet thickness within the range of claim 13 at column 4, line 40, an expansion magnification within the range of claim 15 at column 4, line 41, and a resin, as in claim 17, at column 4, lines 42-50. It is submitted that the composite of Shioya et al. is capable of being recycled, as in claim 19, and the examiner takes Official Notice that it is known to fusion bond or sinter expanded particles having a size within the range of claim 9.

4. Claims 6, 10, 12, 14, 16, 18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shioya et al. (5,928,776) in view of Japanese reference (10-

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077359) as applied to claims 5, 9, 11, 13, 15, 17 and 19 above, and further in view of Taillefert et al. (4,810,452). In forming a composite molded structure to be used in an automobile, Taillefert et al. teach the inclusion of backing layer 10 behind a foam layer at column 3, lines 1-10. It would have been obvious to one of ordinary skill in the art to incorporate such a layer in the composite of Shioya et al. in order to provide the composite with support.

The comments concerning claims 9, 11, 13, 15, 17 and 19 are also considered by the examiner to apply to claims 10, 12, 14, 16, 18 and 20.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allan Kuhns whose telephone number is (571) 272-1202. The examiner can normally be reached on Monday to Thursday from 7:00 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Colaianni, can be reached on (571) 272-1196. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*Allan R. Kuhns*

ALLAN R. KUHNS  
PRIMARY EXAMINER AU 1732

9-21-05